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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,034	12/22/2000	Thomas E. Paulson	SP00-332	4210

22928 7590 04/25/2003

CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

EXAMINER

DOROSHENK, ALEXA A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 04/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/748,034

Applicant(s)

PAULSON ET AL.

Examiner

Alexa A. Doroshenk *MD*

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 3 & 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-19 in Paper No. 5 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 5-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Trotter, Jr. (US 5,807,616 A).

With respect to claim 1, Trotter discloses a furnace component which is exposed to a hydrocarbon containing gas stream, comprising an inorganic material (col. 5, lines 53-59); wherein at least a portion of the exposed inorganic material comprises a catalyst that promotes a hydrocarbon reaction to produce an olefin (col. 1, lines 16-19).

With respect to claim 2, Trotter discloses wherein the inorganic material is a glass, glass-ceramic or ceramic material (col. 2, lines 56-63).

With respect to claim 3, Trotter discloses wherein the inorganic material comprises MgO and B₂O₃ in the weight percents claimed (see table 1).

With respect to claims 5 and 6, Trotter discloses wherein the inorganic material is a barium aluminosilicate with the weight percents of BaO, SiO₂ and Al₂O₃ claimed (col. 3, lines 63-66).

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With respect to claim 7, Trotter discloses wherein the inorganic material is a borosilicate glass (col. 3, lines 54-57).

With respect to claim 8, Trotter discloses wherein the inorganic material comprises SiO₂, MgO and B₂O₃ in the weight percents claimed (see table 1).

With respect to claims 9 and 10, Trotter discloses wherein the catalyst is chosen from the group consisting of rare earth metals, precious metals, transition metals, non-metals and their corresponding compounds (col. 3, lines 54-60).

With respect to claim 11, Trotter discloses wherein the inorganic material is adhered to the surface of a metal substrate (col. 5, lines 53-55 and col. 6, lines 19-20).

With respect to claim 12, Trotter discloses wherein the metal substrate is the inside wall of a hydrocarbon cracking reactor (col. 5, lines 53-55).

With respect to claim 13, Trotter discloses wherein the inorganic material comprises particles, powder, beads, monoliths, or other structured shapes (col. 6, lines 4-7).

With respect to claim 14, Trotter discloses wherein the inorganic material is contained within a packed bed (col. 6, lines 4-18).

With respect to claim 15, Trotter discloses wherein the inorganic material is inserted into the furnace (col. 5, lines 65-66).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trotter, Jr. (US 5,807,616 A).

With respect to claim 16, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a second catalyst since the duplication of existing elements is well within the skill in the art. It is held that the duplication of the above disclosed elements would inherently function to promote carbon gasification.

With respect to claims 17-19, Trotter discloses wherein the catalyst is chosen from the group consisting of rare earth metals, precious metals, transition metals, non-metals and their corresponding compounds (col. 3, lines 54-60).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trotter, Jr. (US 5,807,616 A) in view of Muckelroy (US 3,812,442 A).

Though Trotter teaches wherein borosilicates are a glass-ceramic material which can be used, Trotter is silent as to a composition as claimed.

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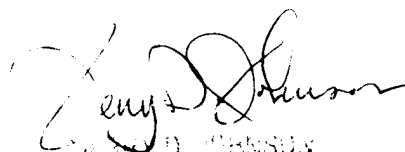
Muckelroy teaches wherein a borosilicate with MgO and P_2O_5 in the weight percents claimed are common types of borosilicates known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select any known borosilicate, including the specific borosilicate taught by Muckelroy, as the borosilicate in Trotter with a reasonable expectation of success.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa A. Doroshenk whose telephone number is 703-305-0074. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



AMY D. JOHNSON
EXAMINER

AAD

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April 24, 2003